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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,267	02/27/2002	Hidetoshi Mishima	1560-0376P	6365
2292 7590 07/12/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER TOPGYAL, GELEK W	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

**Office Action Summary**

Application No.

10/083,267

Applicant(s)

MISHIMA ET AL.

Examiner

Gelek Topgyal

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 50-64 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 50-64 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 08/533,109.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/30/2007 has been entered.

### ***Response to Arguments***

2. Applicant's arguments with respect to **claim 50-64** have been considered but are moot in view of the new ground(s) of rejection.

3. However, at the current state of the prosecution. The claims are rejected under Double Patenting concurrently with the new ground(s) of rejection. The rejections under 35 U.S.C. 101 have been removed.

### ***Double Patenting***

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

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A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. **Claims 50-54, and 57-64** are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,009,236 in view of Fukushima et al. (US 5,596,564).

**Regarding claim 50** of this application, claim 1 of U.S. Patent No. 6,009,236 recites a digital video signal record and playback device for recording and playing back on a recording medium in units of several frames a digital video signal coded in units of several frames in which an I picture for an intra-frame coding, a P picture for a motion compensation prediction in a forward direction, and a B picture for the motion compensation prediction by using as reference pictures the I picture and the P picture located before and after in time, said device comprising: means for dividing one frame portion of video data into  $n$  areas ( $n > 1$ ) with respect to at least the I picture for intra-frame coding at the time of recording; means for recording a central area by giving recording priority on the recording medium to the central area with respect to the I picture frame which is divided into the  $n$  areas, while at the same time recording position information representative of the recording position on the recording medium of divided 1 through  $n$  areas; means for reading only the central area located at the center of the I picture from the recording medium at the time of special playback; a buffer memory for

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storing data in the central area which is read; and means for outputting only data in the central area which is read; but fails to teach a disk (recording medium) stored with video data units comprising a sequence of I, P, and B frame preceded with a control data packets (preceding the I frame of a video data unit) and the address information of a previous video data unit and a next video data unit, and address information identifying an end of said I-picture data contained in the corresponding video data unit.

In an analogous art, Fukushima et al. teaches a recording and reproducing apparatus capable of recording a stream onto a recording medium. The video information, in the form MPEG standard I, P and B frames are recorded into chapters, that read on the claimed video pack. In col. 16, lines 10-42, Fukushima et al. teaches that during reproduction, the system reads the global pointer data 250 and the picture pointer data 230 to locate the independent picture data stored in the neighboring chapters. Each chapter begins with an I-frame, therefore the beginning of each chapter is attained. Furthermore, col. 12, lines 50-56 teaches where each of the pointers has a "combination of the start address ... and the last address ... of the area where the independent picture data 261" are located. This meets the claimed limitation of information identifying an end of said I-picture data contained in the corresponding data unit

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the address information of the previous, next chapters and address of end of I-picture data in the global pointer data 250 and picture pointer data 230 as taught by Fukushima et al. into claim 1 of U.S. Patent No. 6,009,236

to allow for trick play (fast forward or fast reverse) abilities during playback so that a user can watch a desired sequence of video stored on the recording medium.

**Apparatus for reproducing claim 51** of this application is rejected over device claim 1 of U.S. Patent No. 6,009,236 for the same reasons as discussed in claim 50 of this application above.

**Method for reproducing claim 52** of this application is rejected for the same reasons as discussed above in method claim 50 of this application.

**Method for recording claim 53** of this application is rejected over device claim 1 of U.S. Patent No. 6,009,236 for the same reasons as discussed in method claim 50 of this application above and additionally, the recording and playback device of U.S. Patent No. 6,009,236 can practice the method for recording as claimed.

**Apparatus claim 54** of this application is rejected for the same reasons as discussed in method claim 50 and method for recording claim 53 of this application above.

**Method claims 57 and 58** of this application are rejected for the same reasons as discussed in claim 50 of this application above.

**Reproducing apparatus claim 59** of this application is rejected for the same reasons as discussed in claim 50 and method claim 57 of this application above.

**Method claim 60** of this application is rejected for the same reasons as discussed above in apparatus claim 59 of this application.

**Method for recording claim 61 and 62** of this application are rejected for the same reasons as discussed in claim 50 of this application above. Furthermore, col. 6,

lines 26-58 of Fukushima et al. teaches a recording/reproducing apparatus implementing the recording method as claimed.

**Claim 63** of this application is rejected for the same reasons as discussed in claim 50 of this application above and furthermore, the system of Fukushima is used for fast-forward and fast-rewind playback (as discussed above in col. 16, lines 10-42), which reads on the limitations claimed.

**Claim 64** of this application is rejected for the same reasons as discussed in claim 50 of this application above and furthermore, the system of Fukushima is used for fast-forward or fast-rewind playback (as discussed above in col. 16, lines 10-42), which reads on the limitations claimed.

6. **Claims 55-56** are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,009,236 in view of Fukushima et al. (US 5,596,564) and further in view of Fujinami et al. (US 5,455,684).

**Regarding storage medium claim 55** of this application, the proposed combination of claim 1 of U.S. Patent No. 6,009,236 and Fukushima et al. teaches the claimed limitations as discussed in claim 53 above, however fails to particularly teach wherein said control information includes control information include bit rate information of said digital video information.

In an analogous art, Fujinami et al. teaches in Fig. 3 of a data field "MUX RATE" that allows the system to determine the multiplex rate (a bit rate) of the video information.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the ability to include a data field of a "MUX RATE" as taught by Fujinami et al. into the proposed combination of claim 1 of U.S. Patent No. 6,009,236 and Fukushima et al. so that the system can determine the rate of the video stored in a particular chapter.

**Method for recording claim 56** of this application is rejected for the same reasons as discussed in method claim 55 of this application above.

7. **Claims 50-54, and 57-64** are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 6 of U.S. Patent No. 6,134,382 in view of Fukushima et al. (US 5,596,564).

**Regarding claim 50** of this application, claim 6 of U.S. Patent No. 6,134,382 recites a digital video signal record and playback device for recording and playing back on a recording medium in units of several frames a digital video signal coded in units of several frames in which an I picture for an intra-frame coding, a P picture for motion compensation prediction in a forward direction, and a B picture for motion compensation prediction by using as reference pictures the I picture and the P picture located before and after in time, said device comprising: means for dividing one frame portion of video data into  $n$  areas ( $n > 1$ ) with respect to at least the I picture and the P picture at the time of recording, and coding the data in the area unit which is divided into  $n$  areas; means for giving recording priority on the recording medium to the I picture out of the I picture and the P picture which are divided into the  $n$  areas, and recording the position of the



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area for record starting, by scrolling in units of the I and the P picture frame when recording in an area unit, the I picture and the P picture divided into n areas, while at the same time recording position information representing the record position on the recording medium of each area in a group of pictures (GOP); means for reading from the recording medium at least the I picture or the P picture at the time of the special playback; a buffer memory for storing data of the I picture or the P picture which is read; means for outputting the data of the I picture or the P picture which is read, in units of frames as the special playback picture; and interpolating means for interpolating an area which cannot be read using data of a preceding screen when the whole I picture or the whole P picture area cannot be read; but fails to teach a disk (recording medium) stored with video data units comprising a sequence of I, P, and B frame preceded with a control data packets (preceding the I frame of a video data unit) and the address information of a previous video data unit and a next video data unit, and address information identifying an end of said I-picture data contained in the corresponding video data unit.

In an analogous art, Fukushima et al. teaches a recording and reproducing apparatus capable of recording a stream onto a recording medium. The video information, in the form MPEG standard I, P and B frames are recorded into chapters, that read on the claimed video pack. In col. 16, lines 10-42, Fukushima et al. teaches that during reproduction, the system reads the global pointer data 250 and the picture pointer data 230 to locate the independent picture data stored in the neighboring chapters. Each chapter begins with an I-frame, therefore the beginning of each chapter

is attained. Furthermore, col. 12, lines 50-56 teaches where each of the pointers has a "combination of the start address ... and the last address ... of the area where the independent picture data 261" are located. This meets the claimed limitation of information identifying an end of said I-picture data contained in the corresponding data unit

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the address information of the previous, next chapters and address of end of I-picture data in the global pointer data 250 and picture pointer data 230 as taught by Fukushima et al. into claim 6 of U.S. Patent No. 6,134,382 to allow for trick play (fast forward or fast reverse) abilities during playback so that a user can watch a desired sequence of video stored on the recording medium.

**Apparatus for reproducing claim 51** of this application is rejected over device claim 6 of U.S. Patent No. 6,134,382 for the same reasons as discussed in claim 50 of this application above.

**Method for reproducing claim 52** of this application is rejected for the same reasons as discussed above in method claim 50 of this application.

**Method for recording claim 53** of this application is rejected over device claim 6 of U.S. Patent No. 6,134,382 for the same reasons as discussed in method claim 50 of this application above and additionally, the recording and playback device of U.S. Patent No. 6,134,382 can practice the method for recording as claimed.

**Apparatus claim 54** of this application is rejected for the same reasons as discussed in method claim 50 and method for recording claim 53 of this application above.

**Method claims 57 and 58** of this application are rejected for the same reasons as discussed in claim 50 of this application above.

**Reproducing apparatus claim 59** of this application is rejected for the same reasons as discussed in claim 50 and method claim 57 of this application above.

**Method claim 60** of this application is rejected for the same reasons as discussed above in apparatus claim 59 of this application.

**Method for recording claim 61 and 62** of this application are rejected for the same reasons as discussed in claim 50 of this application above. Furthermore, col. 6, lines 26-58 of Fukushima et al. teaches a recording/reproducing apparatus implementing the recording method as claimed.

**Claim 63** of this application is rejected for the same reasons as discussed in claim 50 of this application above and furthermore, the system of Fukushima is used for fast-forward and fast-rewind playback (as discussed above in col. 16, lines 10-42), which reads on the limitations claimed.

**Claim 64** of this application is rejected for the same reasons as discussed in claim 50 of this application above and furthermore, the system of Fukushima is used for fast-forward or fast-rewind playback (as discussed above in col. 16, lines 10-42), which reads on the limitations claimed.

8. **Claims 55-56** are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 6 of U.S. Patent No. 6,134,382 in view of Fukushima et al. (US 5,596,564) and further in view of Fujinami et al. (US 5,455,684).

**Regarding storage medium claim 55** of this application, the proposed combination of claim 6 of U.S. Patent No. 6,134,382 and Fukushima et al. teaches the claimed limitations as discussed in claim 53 above, however fails to particularly teach wherein said control information includes control information include bit rate information of said digital video information.

In an analogous art, Fujinami et al. teaches in Fig. 3 of a data field "MUX RATE" that allows the system to determine the multiplex rate (a bit rate) of the video information.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the ability to include a data field of a "MUX RATE" as taught by Fujinami et al. into the proposed combination of claim 6 of U.S. Patent No. 6,134,382 and Fukushima et al. so that the system can determine the rate of the video stored in a particular chapter.

**Method for recording claim 56** of this application is rejected for the same reasons as discussed in method claim 55 of this application above.

9. **Claims 50-54, and 57-64** are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,549,717 in view of Fukushima et al. (US 5,596,564).

**Regarding claim 50** of this application, claim 1 of U.S. Patent No. 6,549,717 recites an optical disk recording method, comprising the steps of: coding a digital video signal by using a motion compensation prediction and a DCT to obtain video data to be recorded on the optical disk, the video data comprising I pictures which are intra-frame coded pictures, P pictures which are one direction prediction coded pictures and B pictures which are bi-directional prediction coded pictures; forming video data blocks, each including a sequence of at least one each of an I picture, a P picture and a B picture; arranging and recording a system stream including a video packet formed on the basis of a said video data block and a private packet having a stream ID of a private stream; recording in said private packet address information corresponding to a sector for at least the next following said I picture in said video data block; and arranging said private packet so that said private packet is followed by said video data block containing said I picture without another I picture disposed therebetween; but fails to teach an address information identifying an end of said I-picture data contained in the corresponding video data unit.

In an analogous art, Fukushima et al. teaches a recording and reproducing apparatus capable of recording a stream onto a recording medium. In col. 12, lines 50-56 Fukushima teaches where each of the pointers has a "combination of the start address ... and the last address ... of the area where the independent picture data 261" are located. This meets the claimed limitation of information identifying an end of said I-picture data contained in the corresponding data unit

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the address of end of I-picture data in the global pointer data 250 and picture pointer data 230 as taught by Fukushima et al. into claim 1 of U.S. Patent No. 6,549,717 to allow for trick play (fast forward or fast reverse) abilities during playback so that a user can watch a desired sequence of video stored on the recording medium.

**Apparatus for reproducing claim 51** of this application is rejected over method claim 1 of U.S. Patent No. 6,549,717 for the same reasons as discussed in claim 50 of this application above.

**Method for reproducing claim 52** of this application is rejected for the same reasons as discussed above in method claim 50 of this application.

**Method for recording claim 53** of this application is rejected over method claim 1 of U.S. Patent No. 6,549,717 for the same reasons as discussed in method claim 50 of this application above and additionally, the method of U.S. Patent No. 6,549,717 can practice the method for recording as claimed.

**Apparatus claim 54** of this application is rejected for the same reasons as discussed in method claim 50 and method for recording claim 53 of this application above.

**Method claims 57 and 58** of this application are rejected for the same reasons as discussed in claim 50 of this application above.

**Reproducing apparatus claim 59** of this application is rejected for the same reasons as discussed in claim 50 and method claim 57 of this application above.

**Method claim 60** of this application is rejected for the same reasons as discussed above in apparatus claim 59 of this application.

**Method for recording claim 61 and 62** of this application are rejected for the same reasons as discussed in claim 50 of this application above. Furthermore, col. 6, lines 26-58 of Fukushima et al. teaches a recording/reproducing apparatus implementing the recording method as claimed.

**Claim 63** of this application is rejected for the same reasons as discussed in claim 50 of this application above and furthermore, the system of Fukushima is used for fast-forward and fast-rewind playback (as discussed above in col. 16, lines 10-42), which reads on the limitations claimed.

**Claim 64** of this application is rejected for the same reasons as discussed in claim 50 of this application above and furthermore, the system of Fukushima is used for fast-forward or fast-rewind playback (as discussed above in col. 16, lines 10-42), which reads on the limitations claimed.

10. **Claims 55-56** are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,549,717 in view of Fukushima et al. (US 5,596,564) and further in view of Fujinami et al. (US 5,455,684).

**Regarding storage medium claim 55** of this application, the proposed combination of claim 1 of U.S. Patent No. 6,549,717 and Fukushima et al. teaches the claimed limitations as discussed in claim 53 above, however fails to particularly teach

wherein said control information includes control information include bit rate information of said digital video information.

In an analogous art, Fujinami et al. teaches in Fig. 3 of a data field "MUX RATE" that allows the system to determine the multiplex rate (a bit rate) of the video information.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the ability to include a data field of a "MUX RATE" as taught by Fujinami et al. into the proposed combination of claim 1 of U.S. Patent No. 6,549,717 and Fukushima et al. so that the system can determine the rate of the video stored in a particular chapter.

**Method for recording claim 56** of this application is rejected for the same reasons as discussed in method claim 55 of this application above.

11. **Claims 50-54, and 57-64** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 56-60, respectively of copending Application No. 10/083,475 in view of Fukushima et al. (US 5,596,564).

**Regarding claim 50** of this application, claim 56 of copending Application No. 10/083,475 recites a method for recording on a storage medium containing digital video information obtained by coding a digital video signal using motion compensation prediction, said digital video information comprising intra-coded I-picture data, predictive-coded P-picture data and bidirectionally predictive-coded B-picture data: said



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digital video information comprising video data units, each of said video data units comprising a sequence of said I-picture data, said P-picture data and said B-picture data; wherein each of said video data units has a control data control information for reproducing said digital video information, said control packet preceding I-picture data of a corresponding video data unit, wherein said control information includes address information of said I-picture data and P-picture data in said video data unit, wherein a reproducing apparatus accesses said control data packet during playback operation and uses said control information included in said control data packet for reproducing said digital video information. But fails to particularly teach that the control data packet includes a start address of a previous video data unit and next video data unit and address information identifying an end of I-picture data.

In an analogous art, Fukushima et al. teaches a recording and reproducing apparatus capable of recording a stream onto a recording medium. In col. 16, lines 10-42, Fukushima et al. teaches that during reproduction, the system reads the global pointer data 250 and the picture pointer data 230 to locate the independent picture data stored in the neighboring chapters. Each chapter begins with an I-frame, therefore the beginning of each chapter is attained. Furthermore, col. 12, lines 50-56 teaches where each of the pointers has a "combination of the start address ... and the last address ... of the area where the independent picture data 261" are located. This meets the claimed limitation of information identifying an end of said I-picture data contained in the corresponding data unit

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the address information of the previous, next chapters and address of end of I-picture data in the global pointer data 250 and picture pointer data 230 as taught by Fukushima et al. into claim 56 of copending Application No. 10/083,475 to allow for trick play (fast forward or fast reverse) abilities during playback so that a user can watch a desired sequence of video stored on the recording medium.

**Regarding claim 51** of this application, claim 57 of copending Application No. 10/083,475 recites an apparatus for reproducing digital video information contained in a storage medium created according to the method of claim 56, wherein said control information is used to present said digital video information.

**Regarding claim 52** of this application, claim 58 of copending Application No. 10/083,475 recites a method for reproducing digital video information contained in a storage medium created according to the method of claim 56, wherein said control information is used to present said digital video information.

**Regarding claim 53** of this application, claim 59 of copending Application No. 10/083,475 recites a method for recording digital video information on a storage medium, said digital video information being obtained by coding a digital video signal using motion compensation prediction, said digital video information comprising intra-coded I-picture data, predictive-coded P-picture data and bidirectionally predictive-coded B-picture data, said method comprising: forming video data units, each of said video data units comprising a sequence of said I-picture data, said P-picture data and

said B-picture data, creating a control data containing control information for reproducing said digital video information, said control information including address information of said I-picture data and a P-picture data, said control packet preceding I-picture data of a corresponding video data unit, forming a system stream comprising said video data units, each of said video data units having said control data, and recording said system stream on said storage medium. But fails to particularly teach that the control data packet includes a start address of a previous video data unit and next video data unit and address information identifying an end of I-picture data.

In an analogous art, Fukushima et al. teaches a recording and reproducing apparatus capable of recording a stream onto a recording medium. In col. 16, lines 10-42, Fukushima et al. teaches that during reproduction, the system reads the global pointer data 250 and the picture pointer data 230 to locate the independent picture data stored in the neighboring chapters. Each chapter begins with an I-frame, therefore the beginning of each chapter is attained. Furthermore, col. 12, lines 50-56 teaches where each of the pointers has a "combination of the start address ... and the last address ... of the area where the independent picture data 261" are located. This meets the claimed limitation of information identifying an end of said I-picture data contained in the corresponding data unit

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the address information of the previous, next chapters and address of end of I-picture data in the global pointer data 250 and picture pointer data 230 as taught by Fukushima et al. into claim 59 of copending Application

No. 10/083,475 to allow for trick play (fast forward or fast reverse) abilities during playback so that a user can watch a desired sequence of video stored on the recording medium.

**Regarding claim 54** of this application, claim 60 of copending Application No. 10/083,475 recites an apparatus for reproducing digital video information contained in a storage medium containing digital video information recorded by a method according to claim 59.

**Method claims 57 and 58** of this application are rejected for the same reasons as discussed in claim 50 of this application above.

**Reproducing apparatus claim 59** of this application is rejected for the same reasons as discussed in claim 50 and method claim 57 of this application above.

**Method claim 60** of this application is rejected for the same reasons as discussed above in apparatus claim 59 of this application.

**Method for recording claim 61 and 62** of this application are rejected for the same reasons as discussed in claim 50 of this application above. Furthermore, col. 6, lines 26-58 of Fukushima et al. teaches a recording/reproducing apparatus implementing the recording method as claimed.

**Claim 63** of this application is rejected for the same reasons as discussed in claim 50 of this application above and furthermore, the system of Fukushima is used for fast-forward and fast-rewind playback (as discussed above in col. 16, lines 10-42), which reads on the limitations claimed.

**Claim 64** of this application is rejected for the same reasons as discussed in claim 50 of this application above and furthermore, the system of Fukushima is used for fast-forward or fast-rewind playback (as discussed above in col. 16, lines 10-42), which reads on the limitations claimed.

12. **Claims 55-56** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 59 of copending Application No. 10/083,475 in view of Fukushima et al. (US 5,596,564) and further in view of Fujinami et al. (US 5,455,684).

**Regarding storage medium claim 55** of this application, the proposed combination of claim 59 of copending Application No. 10/083,475 and Fukushima et al. teaches the claimed limitations as discussed in claim 53 above, however fails to particularly teach wherein said control information includes control information include bit rate information of said digital video information.

In an analogous art, Fujinami et al. teaches in Fig. 3 of a data field "MUX RATE" that allows the system to determine the multiplex rate (a bit rate) of the video information.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the ability to include a data field of a "MUX RATE" as taught by Fujinami et al. into the proposed combination of claim 59 of copending Application No. 10/083,475 and Fukushima et al. so that the system can determine the rate of the video stored in a particular chapter.

**Method for recording claim 56** of this application is rejected for the same reasons as discussed in method claim 55 of this application above.

***Claim Rejections - 35 USC § 102***

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

14. **Claims 50-54 and 57-64** are rejected under 35 U.S.C. 102(e) as being anticipated by Fukushima et al. (US 5,596,564).

**Regarding claim 50**, Fukushima et al. teaches a method for recording, on a storage medium digital video information obtained by coding a digital video signal using motion compensation prediction, said digital video information comprising intra-coded I-picture data, predictive-coded P-picture data and bidirectionally predictive-coded B-picture data (col. 11, lines 46-61 discloses an MPEG stream that contains I, P and B frames):

said digital video information comprising video data units (Fig. 2 and col. 10, lines 52-67 teaches Chapter data 240), each of said video data units comprising a sequence of said I-picture data, said P-picture data and said B-picture data (Fig. 2 and col. 11, lines 46-61 teaches wherein I, P and B frames are recorded in GOPs, which further are grouped to form a chapter data 240);

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wherein each of said video data units has a control data packet containing control information for reproducing said digital video information, said control data packet preceding I-picture data of a corresponding video data unit (col. 10, lines 39-51 teaches global point data 250 and picture pointer data 230 that are preceding the chapter data 240. Furthermore, in col. 13, lines 35-41, it is taught that global pointer data 250 can be plurally divided and recorded together with the picture pointer data 230. Therefore, a plurally divided global pointer data 250 and picture pointer data 230 meet the claimed control data packet);

wherein said control information includes start address of a previous video data unit and a next video data unit, and address information identifying an end of said I-picture data contained in the corresponding video data unit. (Col. 11, lines 13-40 teaches wherein prepointers 232 and postpointers 231 store locations of independent picture data in the previous and the following chapter. As discussed in col. 11, lines 41-45, the global pointed data 250 includes all pointer information stored within the corresponding AV file 210. In col. 16, lines 10-42, Fukushima et al. teaches that during reproduction, the system reads the global pointer data 250 and the picture pointer data 230 to locate the independent picture data stored in the neighboring chapters. Each chapter begins with an I-frame, therefore the beginning of each chapter is attained. Furthermore, col. 12, lines 50-56 teaches where each of the pointers has a "combination of the start address ... and the last address ... of the area where the independent picture data 261" are located. This meets the claimed limitation of

information identifying an end of said I-picture data contained in the corresponding data unit);

wherein a reproducing apparatus accesses said control data packet during playback operation and uses said control information included in said control data packet for reproducing said digital video information (Col. 16, lines 10-42 describes playback of video using the pointers as discussed above).

**Apparatus for reproducing claim 51** is rejected for the same reasons as discussed in method claim 50 above.

**Method for reproducing claim 52** is rejected for the same reasons as discussed in apparatus for reproducing claim 51 above.

**Method for recording claim 53** is rejected for the same reason as discussed in method claim 50 above.

**Apparatus claim 54** is rejected for the same reasons as discussed in method claim 53 and method claim 50 above.

**Method claims 57 and 58** are rejected for the same reasons as discussed in method claim 50 above.

**Apparatus claim 59** is rejected for the same reasons as discussed in claim 50 above.

**Method claim 60** is rejected for the same reasons as discussed above in apparatus claim 59.



**Method for recording claim 61 and 62** are rejected for the same reasons as discussed in claim 50 above. Furthermore, col. 6, lines 26-58 of Fukushima et al. teaches a recording/reproducing apparatus implementing the recording method as claimed.

**Claim 63** is rejected for the same reasons as discussed in claim 50 above and furthermore, the system of Fukushima is used for fast-forward and fast-rewind playback (as discussed above in col. 16, lines 10-42), which reads on the claimed limitations.

**Claim 64** is rejected for the same reasons as discussed in claim 50 above and furthermore, the system of Fukushima is used for fast-forward or fast-rewind playback (as discussed above in col. 16, lines 10-42), which reads on the claimed limitations.

***Claim Rejections - 35 USC § 103***

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. **Claims 55-56** are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukushima et al. (US 5,596,564) in view of Fujinami et al. (US 5,455,684).

**Regarding claim 55**, Fukushima teaches the claimed limitations as discussed in claim 53 above, however fails to particularly teach wherein said control information includes control information include bit rate information of said digital video information.

In an analogous art, Fujinami et al. teaches in Fig. 3 of a data field "MUX RATE" that allows the system to determine the multiplex rate (a bit rate) of the video information.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the ability to include a data field of a "MUX RATE" as taught by Fujinami et al. into the system of Fukushima et al. so that the system can determine the rate of the video stored in a particular chapter.

**Claim 56** is rejected for the same reasons as discussed in claims 53 and 55 above.

### ***Conclusion***

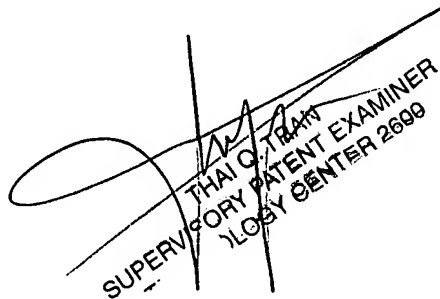
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gelek Topgyal whose telephone number is 571-272-8891. The examiner can normally be reached on 8:30am -5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GT  
6/22/2007

  
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